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25920	7590	01/27/2005	EXAMINER	
MARTINE PENILLA & GENCARELLA, LLP			PHAM, CHRYSTINE	
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SUNNYVALE, CA 94085			2122	

DATE MAILED: 01/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/846,067

Applicant(s)

SHARMA ET AL.

Examiner

Chrystine Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____  | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

1. This action is responsive to the Amendments filed on September 20<sup>th</sup> 2004. Acknowledgement is made of cancelled claims 2, 5, and 9. Claims 1, 3, 4, 6-8, 10-20 are presented for examination.

***Response to Amendment***

2. In view of the Applicants' amendments to the drawings to include reference numbers mentioned in the specification, and to illustrate process operations as described in the specification, objection to the drawings is hereby withdrawn.
3. In view of the Applicants' amendments to the specification to correct typographical errors in references to the drawings, to correct inconsistent use of term "RSM 204", and to include updated status (serial numbers) in cross-references to related applications, objection to the specification is hereby withdrawn.

***Response to Arguments***

4. The Applicants assert that the non-statutory double patenting is not a Section 101 rejection as cited in the Office Action dated June 16<sup>th</sup> 2004. The examiner respectfully advises the Applicants to carefully consider the statement of 35 U.S.C. 101:

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain **a patent** therefor, subject to the conditions and requirements of this title."

Thus, claims that are subject to a **double patenting** rejection are subject to rejection under 35 U.S.C. 101.

5. The Applicants assert that other art may not be combined with an obviousness-type double patenting rejection and that the rejection of claims 19-20 under obviousness-type double patenting is improper. The Applicants are reminded that rejection of claims 19-20 is a

**provisional** obviousness-type double patenting rejection, as stated in the Office Action, that is to say, [because] the conflicting claims have not in fact been patented. See MPEP 804 [chart] I.B. under 'same inventive entity' (Provisional Obviousness Double Patenting Rejection-8.33 & 8.37). The examiner considers the provisional obviousness type double patenting rejection to be proper and maintained. See previous Office Action.

6. Applicants' arguments filed on September 20<sup>th</sup> 2004 in regards to claim rejections under 35 U.S.C. 102(b) and 103(a) have been fully considered but they are not persuasive.

The Applicants essentially contend that Ma et al. fails to teach performing "online upgrade of a managed state for a JAVA base application in a middle-tier" (page 15 last paragraph lines 1-3) and "executing a JAVA module on a server, wherein the JAVA module is in a middle-tier between a client browser and databases" (page 15 3<sup>rd</sup> whole paragraph lines 3-4). However, the examiner respectfully disagrees. Ma et al. clearly disclose performing an online upgrade of a managed state for a JAVA base application (e.g., see *API function calls 128, meta server, JAVA code, API calls 138* col.13:10-40) in a middle-tier (e.g., see *meta server 70* FIG.3 & associated text; col.6:30-38; col.6:65-67), and executing a JAVA module on a server (e.g., see *server objects* col.4:35-64), wherein the JAVA module is in the middle-tier between a client browser (e.g., *request to create new obj class* FIG.3 & associated text; see *client 92, runtime update tool/app 76, client app 74* FIGS.5,6 & associated text; see *thin client* col.12:52-61; see FIG.10 & associated text) and databases (e.g., see *meta obj database repository 62, application database 64* FIGS.3,5 & associated text). It is also noted that the feature recited in the amended claims (i.e., performing online upgrades in a JAVA environment or "middle-tier") is well known in prior art as admitted by the Applicants (see original Specification, section Description of Related Art, page 2).

The Applicants further argue that the original entity bean is not anticipated by Ma et al.'s *client application 74* since it is in the remote client. However, the examiner respectfully submits that *client application 74* is not the only feature relied upon to teach the claimed original entity bean since *server application 86* has also been cited along with *client application 74* as an alternative version of the "original entity bean" and not meant to anticipate the original state object as interpreted by the Applicants (page 16 1<sup>st</sup> full paragraph lines 1-3). Furthermore, Ma et al.'s *rules 81* has been cited as a feature anticipating the claimed "original state object" [storing a state of the original entity bean] (see claim 1, previous Office Action). Contrary to Applicants argument that "neither *application 86* nor the *client application 74* is updated" (i.e., original state object and original entity are upgraded), Ma et al. clearly teach updating *application 86*, *client application 74* (e.g., see *server-side application 86*, *client-side application 74* col.8:20-34), and the *rules 81* (e.g., col.8:55; see *classes 68'*, *68 FIG.3* & associated text), that is to say, updating the original state object and original entity bean.

The Applicants further argue that Anderson's conversion package does not anticipate the claimed "state management unit". However, contrary to Applicants' argument, Anderson's conversion package clearly anticipates the claimed "state management unit" (e.g., see *conversion, skeleton, reconfigure the running application* Section Strategy 1<sup>st</sup> paragraph) in which the original state object and the upgraded state object are respectively classified (e.g., see *conversion skeleton class, old and new version of a specific class, old class, new class* Section Tools 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> paragraphs).

In view of the foregoing discussion, the examiner considers claim rejections under 35 U.S.C 102(b) and 103(a) proper and maintained.

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7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless –*

*(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

8. Claims 1, 3, 4, 6-8, 10-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Ma et al. (USP 5,920,725) made of record (hereinafter *Ma et al.*).

As per claim 1, *Ma et al.* teach a method for upgrading managed state for a JAVA based application (e.g., see Abstract; see *API function calls 128, meta server, JAVA code, API calls 138 col.13:10-40*), the method comprising:

- executing a JAVA module on a server (e.g., see *server objects col.4:35-64*), wherein the JAVA module is in a middle-tier (e.g., see *meta server 70 FIG.3 & associated text; col.6:30-38; col.6:65-67*) between a client browser (e.g., *request to create new obj class FIG.3 & associated text; see client 92, runtime update tool/app 76, client app 74 FIGS.5,6 & associated text; see thin client col.12:52-61; see FIG.10 & associated text*) and databases (e.g., see *meta obj database repository 62, application database 64 FIGS.3,5 & associated text*), the JAVA module includes at least one original entity bean (e.g., *FIG.5 server app 86 & associated text*) and at least one original state object (e.g., see *FIG.5 rules 81, col.8 line 37-39*) in communication with the original entity bean, the original state object storing a state of the original entity bean (e.g., see *FIG.5 rules 81, col.8 line 37-39*).
- generating an upgraded state object (e.g., *col.8 line 55, FIG.3 classes 68', 68 & associated text*), wherein the upgraded state object is generated by upgrading a physical schema, which contains state object classes (emphasis added), using

data stored in a repository that is part of the databases (e.g., see FIG.3 *repository 62* and associated text, col.4 line 42-48).

- o transferring the state stored in the original state object to the upgraded state object (e.g., col.9 line 20-27, col.11 line 25-40).
- o providing state management for the original entity bean using the upgraded state object (e.g., FIG.8 152 & 144 & associated text).

As per claim 3, it recites limitations that have been previously addressed in claim 1 above. Therefore, is rejected for the same reasons as cited in claim 1.

As per claim 4, *Ma et al.* disclose a method as applied to claim 3, wherein both the original entity bean and the original state object are disabled (e.g., col.4 line 59-63, col.5 line 17-21).

As per claim 6, the *Ma et al.* teach a method as applied to claim 4, wherein functionality of the JAVA module is not disrupted when the upgraded state object is generated (i.e., JAVA module is upgrade) (e.g., see Abstract, col.7 line 41-43, col.10 line 55-56, and also col.4 line 59-63).

As per claim 7, it recites limitation, which has been addressed in claim 6 above, therefore, is rejected for the same reason as cited in claim 6.

As per claim 8, the *Ma et al.* teach a JAVA platform (e.g., see Abstract; see *API function calls 128, meta server, JAVA code, API calls 138* col.13:10-40) capable of performing an online upgrade on a JAVA application (e.g., col.4:12-17; col.4:59-63), the JAVA platform comprising:

- o a JAVA module in a middle-tier (e.g., see *meta server 70* FIG.3 & associated text; col.6:30-38; col.6:65-67) between a client browser (e.g., *request to create*

*new obj class* FIG.3 & associated text; see *client* 92, *runtime update tool/app* 76, *client app* 74 FIGS.5,6 & associated text; see *thin client* col.12:52-61; see FIG.10 & associated text) and databases (e.g., see *meta obj database repository* 62, *application database* 64 FIGS.3,5 & associated text) including at least one original entity bean (e.g., FIG.5 *server app* 86 & associated text) and at least one original state object (e.g., see FIG.5 *rules* 81, col.8 line 37-39) in communication with the original entity bean, wherein the original state object storing a state of the original entity bean, and wherein the state object provides state management for the original entity bean (e.g., see FIG.5 *rules* 81, col.8 line 37-39).

- a repository that is part of the databases having upgraded class files for the original entity bean and upgraded class files for the original state object (e.g., see FIG.3 *repository* 62 and associated text, col.4 line 42-48).
- wherein the original state object is upgraded by generating an upgraded state object using upgraded class files from the repository (e.g., see FIG.3 *repository* 62 and associated text, col.4 line 42-48), and transferring the state stored in the original state object to the upgraded state object (e.g., col.9 line 24-33, col.11 line 25-40); and
- an upgrade entity bean is created using data from the repository as the JAVA platform is upgraded (e.g., col.7 line 19-39,46-48, col.6 line 19-23, col.9 line 20-22).

As per claim 10, the *Ma et al.* teach a method as applied to claim 8, wherein the state of the upgraded entity bean is managed using the upgraded state object (e.g., see FIG.8 146 or 147 & 152 & associated text).



As per claims 11-14, they recite limitations that have been previously addressed in the above claims 4, 1, 6, 6 respectively, therefore, are rejected for the same reason as cited in claims 4, 1, 6, 6.

As per claim 15, the *Ma et al.* teach a method for upgrading a JAVA application having a managed application state comprising the operations of:

- executing a JAVA module on a server, wherein the JAVA module is in a middle-tier (e.g., see *meta server 70* FIG.3 & associated text; col.6:30-38; col.6:65-67) between a client browser (e.g., *request to create new obj class* FIG.3 & associated text; see *client 92*, *runtime update tool/app 76*, *client app 74* FIGS.5,6 & associated text; see *thin client* col.12:52-61; see FIG.10 & associated text) and databases (e.g., see *meta obj database repository 62*, *application database 64* FIGS.3,5 & associated text), the JAVA module including at least one original entity bean (e.g., FIG.5 *server app 86* & associated text) and at least one original state object (e.g., FIG.5 *rules 81*, col.8 line 37-39) in communication with the original entity bean, the original state object storing the state of the original entity bean (e.g., FIG.5 *rules 81*, col.8 line 37-39).
- generating an upgraded state object using data stored in a system repository that is part of the databases e.g., see FIG.3 *repository 62* and associated text, col.4 line 42-48).
- transferring the state stored in the original state object to the upgraded state object (e.g., col.9 line 24-33, col.11 line 25-40).
- providing state management for the original entity bean using the upgraded state object (e.g., see FIG.8 *144* & *152* and associated text).
- generating an upgraded entity bean using data stored in a system repository (e.g., col.4 line 45-48, col.6 line 12-15).

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- providing state management for the upgraded entity bean using the upgraded state object (e.g., see FIG.8 146 or 147 & 152 and associated text).
- disabling both the original entity bean and the original state object (e.g., see Abstract and also col.11 line 49-55).

As per claims 16-18, they recite limitations, which have been addressed above in claims 12-14, respectively, therefore, are rejected for the same reasons as cited in claims 12-14 from above.

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

10. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Ma et al.* in view of *Anderson*.

As per claim 19, the *Ma et al.* disclose a method as applied to claim 18. *Ma et al.* fail to teach the original state object and the upgraded state object being classified into a particular state management unit. However, *Anderson* discloses a method for online upgrade of a JAVA application, wherein the original state object and the upgraded state object are respectively classified (e.g., see *conversion skeleton class, old and new version of a specific class, old class, new class* Section Tools 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup> paragraphs) into a particular state management unit (e.g., see *conversion, skeleton, reconfigure the running application* Section Strategy 1<sup>st</sup> and 2<sup>nd</sup> paragraphs). It would have been obvious to one of ordinary skill in the pertinent art at the time of

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the applicant's invention to modify the teaching of Ma et al. to include a classification of the original and upgraded state objects into a state management unit as disclosed by *Anderson*, for said classification will enable migration of components through updates, preserve data consistency and transparency of the online upgrade.

As per claim 20, the teaching of Ma et al., as modified by *Anderson*, discloses a method as applied to claim 19, wherein the particular state management unit is used to facilitate upgrading of the original state object (e.g., see *conversion, skeleton, reconfigure the running application* Section Strategy 1<sup>st</sup> and 2<sup>nd</sup> paragraphs).

#### **Conclusion**

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chrystine Pham whose telephone number is 571-272-3702. The examiner can normally be reached on Mon-Fri, 8:30am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 21, 2005

  
**TUAN DAM**  
**SUPERVISORY PATENT EXAMINER**